hifly® is the complete solution to satellite operations providing fully integrated, homogeneous support for large fleets of different satellites. hifly® also provides a down-sized, compact solution for small satellite fleets.

hifly® is powered by SCOS-2000, the European Space Agency’s Spacecraft Control System kernel.

GMV and SciSys have signed a cooperation agreement for the development and marketing of hifly®.

The Complete Solution for Satellite Fleet Operations

What do you expect from a Satellite Control System?

Does your answer include:

⇒ Flight-Proven
⇒ Adaptable
⇒ Low Cost
⇒ Easy-to-Deploy
⇒ Multi-mission and Multi-user
⇒ Open

Then you should know that:

hifly® is:

⇒ 100% flight-proven and currently operational under Linux (Solaris is also available) for everything from LEOP to routine operations
⇒ Compatible with a wide range of HW and external SW
⇒ Easy to operate and maintain

hifly® has:

⇒ A homogeneous operations interface
⇒ A flexible license policy and unlimited customization
⇒ No ITAR constraints
⇒ A down-sized, compact version for small satellite fleets

hifly® supports:

⇒ Many different satellite platforms
⇒ Multiple users
⇒ Multiple sites and site redundancy

hifly® supports ”your” business model
SyncBridge

SyncBridge synchronizes operational data between various sites, usually the backup with respect to the prime site. It can also be used to transfer operational data to non-operational environments for various uses such as training or SW validation and verification.

DPWizard

DPWizard (the Derived Parameter tool) provides powerful synthetic/derived parameters support which leads to a radical reduction in DP production costs and an increase in operations safety.

Core Operations

Core Operations is the hifly kernel. It provides powerful TM/TC processing chains. It also provides the ability to focus on the operations of a specific satellite while maintaining a global awareness of events in the entire satellite fleet.

SatDB

SatDB manages the satellite database by editing and checking consistency of the data, and distributing it to the processing chains for operations.

deskTM

DeskTM is an ultra-lightweight telemetry client that delivers remote access to satellite telemetry. It has been specifically designed for interoperability with Microsoft® Windows® applications.

For more information, please visit...
TCRbridge (the Telemetry, Commanding and Ranging bridge module) manages the link between the SCC and the uplink/downlink antennas. It includes various interface protocols and it has been specifically designed for easy adaptation to other protocols.

SmartRings generates the commands required for the optimal payload reconfiguration according to mission needs so as to minimize downtime in case of payload device failure. It also visualizes the payload configuration status.

FleetMan provides extended Fleet Management capabilities to medium and large satellite control centre deployments by centralizing event processing and alarm handling, and providing global snapshots of the infrastructure status.

eBook, (the Electronic operations logbook) provides centralised handling of all system incidents observed by end-users.

MIDAS (the Mission Data Analysis System) provides off-line data analysis and exploitation and guarantees the completeness and consistency of the mission data repository.

E2EE (the end-to-end emulator) simulates space system elements (satellites, ground stations, SCCs, etc.). It includes built-in support for existing standards and interfaces (CCSDS, NCTRS, etc.).
How can you benefit from this technology?

hifly® is the result of GMV’s and SciSys’ extensive experience supplying Satellite Control System services and solutions over the last 20 years. Responding to market demand, it is fast becoming the most competitive, powerful solution worldwide with a rapidly growing customer base (including large operators such as EUTELSAT).

hifly® brings together the best of two worlds: a complete, flight proven solution that is available out-of-the-box, and unlimited low-cost customization. hifly® will fulfill your most demanding requirements and needs.

Adaptable & Open -- hifly® adapts to all sizes of satellite fleets, and your own existing HW and SW as well.

- **Unlimited Customization**: Talk to us. Together we will ensure that your hifly® deployment adapts completely to your needs.
- **Flexible License Policy**: Our Flexible License Policy gives you the capability to make the best of your HW infrastructure through dynamic allocation of client and server components.
- **Full Visibility**: We provide Full Visibility of design documentation & source code to customers who prefer to get more technically involved in their hifly® deployment.
- **Easy Integration**: Easy integration of external products through the open SCOS-2000 interfaces.

Low Cost -- hifly® provides the most powerful operations support out-of-the-box at the lowest cost.

- **Low-cost Deployment**: hifly®’s distributed processing model guarantees scalability for large deployments & optimizes HW infrastructures. It can be deployed on complex SCC infrastructures (i.e. the EUTELSAT SCC), or on a laptop.
- **Low-cost Maintenance**: hifly®’s object oriented design guarantees a 1 to N cost reduction compared to satellite-dedicated solutions.
- **Low-cost Operations**: A much smaller operations team can handle a much larger fleet through integrated, homogeneous operations support because they do not have to deal with different application SW and operations concepts for the different satellites.

Multi-mission & Multi-User -- hifly® provides homogeneous operations support to many different platforms.

- **Homogeneous Operations Support**: Different satellite buses within the fleet have the same operational interface and end-user applications for integrated support.
- **Multi-platform**: hifly® currently supports many satellite platforms. New platforms are continuously being added. Please consult us for further information.
- **Multiple Site Support**: hifly® provides integrated site monitoring and synchronization of prime, back-up, simulation and development sites, as well as hot-redundancy & dynamic equipment reconfiguration.
- **Universal Platform Support**: hifly®’s processing chains have been designed around the CCSDS TM/TC packet standards to support future buses featuring full CCSDS compliance and today’s buses featuring synchronous telemetry with synchronous & asynchronous channels.

Flight-Proven & Complete -- hifly® provides complete satellite operations with flight-proven, operational SW.

- **Integrated and Compatible Products**: hifly® is compatible with and has been integrated with various Flight Dynamics Systems, Operations Automation Systems (for LEOP and on-station operations), and Off-line Data Analysis tools. Please contact us for more details.
- **100% Flight-Proven and Operational**: Eutelsat satellites are currently flying with hifly® and we are finishing the deployment to cover all of Eutelsat’s fleet. Arabsat 4A and 4B will also fly using hifly®. ESA missions Integral, Mars Express, and Rosetta are currently flying with ESA’s SCOS-2000 kernel, the same kernel technology as hifly®’s. We are currently developing the Cryosat, GOCCE, and Galileo System Test Bed V2 SCCs using this same kernel.